

Lincoln EMS

Cardiac Arrest Statistics

1997- December 31, 2004



Data Compiled by:

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Total Cardiac Arrests

1.a: Resuscitations Attempted

1997 = 146

1998 = 161

1999 = 181

2000 = 130

2001 = 149

2002 = 134

2003 = 126

2004 = 123

Definition: Number of cardiac arrest patients transported that resuscitation was attempted by EMS.

1.b: Cardiac Arrest Origin

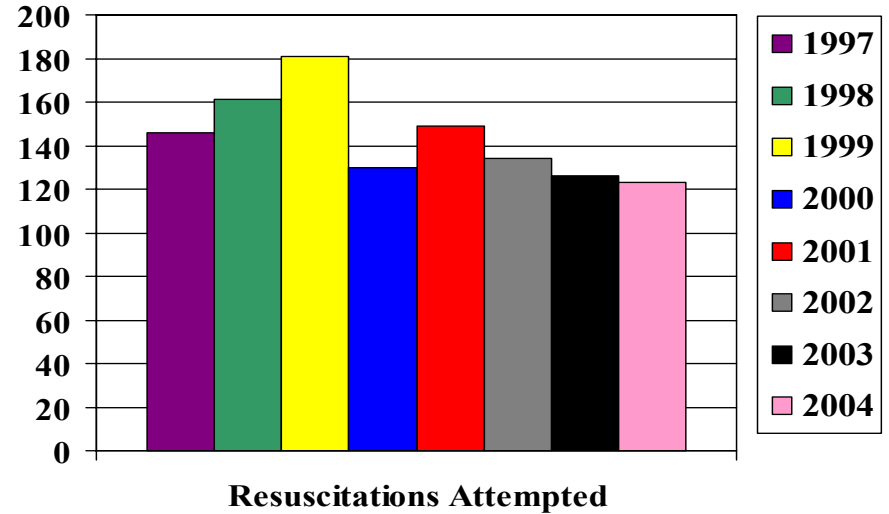
| | Medicals | Trauma | Other* |
|--------|----------|--------|--------|
| 1997 = | 136 | 10 | -- |
| 1998 = | 151 | 10 | -- |
| 1999 = | 166 | 8 | 7 |
| 2000 = | 119 | 7 | 4 |
| 2001 = | 140 | 5 | 4 |
| 2002 = | 123 | 8 | 3 |
| 2003 = | 107 | 13 | 6 |
| 2004 = | 112 | 11 | -- |

Definition: Total number of cardiac arrests resulting from a presumed cause.

*Other includes Overdose, Hanging, Carbon Monoxide, etc.

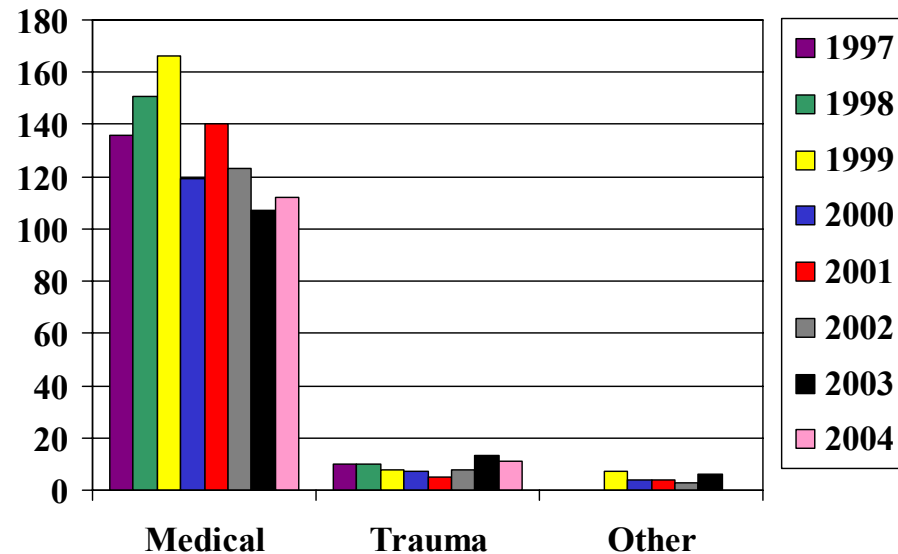
Fig.1.a

Number of Patients



Number of Patients

Fig.1.b

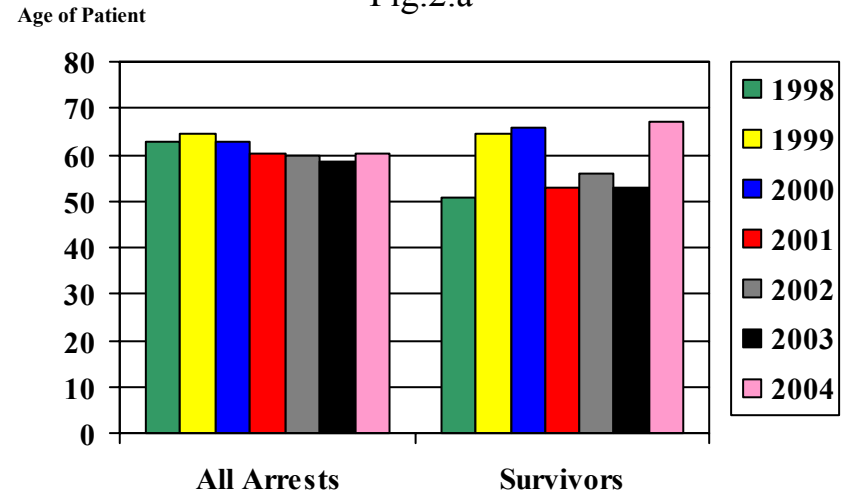


2.a: Average Age of Cardiac Arrests/Survivors

| | All Arrests | Survivors |
|------|-------------|-----------|
| 1998 | 62.9 | 50.6 |
| 1999 | 64.5 | 64.5 |
| 2000 | 63.0 | 65.9 |
| 2001 | 60.2 | 52.8 |
| 2002 | 59.9 | 56.1 |
| 2003 | 58.4 | 53.0 |
| 2004 | 60.3 | 66.9 |

Definition: Average age of all cardiac arrest patients, and average age of cardiac arrest survivors.

Fig.2.a



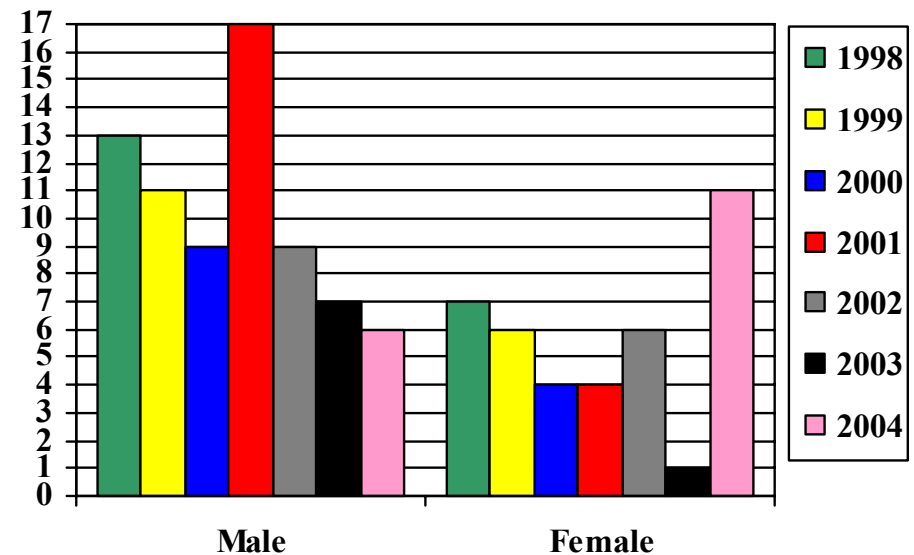
2.b: Cardiac Arrest Survivors by Gender

| | Survivors | | Total Number of |
|------|-----------|--------|--------------------------|
| | Male | Female | Resuscitations Attempted |
| 1998 | 13 | 7 | 161 |
| 1999 | 11 | 6 | 181 |
| 2000 | 9 | 4 | 130 |
| 2001 | 17 | 4 | 149 |
| 2002 | 9 | 6 | 134 |
| 2003 | 7 | 1 | 126 |
| 2004 | 6 | 11 | 123 |

Definition: Total number of cardiac arrest survivors per gender.

Number of Survivors

Fig.2.b



ALS Skill Proficiency

3.a: Advanced Life Support Skills (Minutes)

| | IV Access | ET Intubation | Medication | Defib 1* | Defib 2** |
|------|-----------|---------------|------------|----------|-----------|
| 1998 | 6.8 | 4.9 | 6.1 | -- | N/R |
| 1999 | 6.3 | 4.7 | 5.5 | 6.6 | N/R |
| 2000 | 6.1 | 4.9 | 5.7 | 5.6 | N/R |
| 2001 | 8.1 | 5.0 | 6.0 | 4.6 | N/R |
| 2002 | 7.6 | 4.7 | 6.1 | 4.2 | N/R |
| 2003 | 6.9 | 4.9 | 5.8 | 5.2 | N/R |
| 2004 | 6.9 | 5.8 | 6.8 | 5.9 | 1.7 |

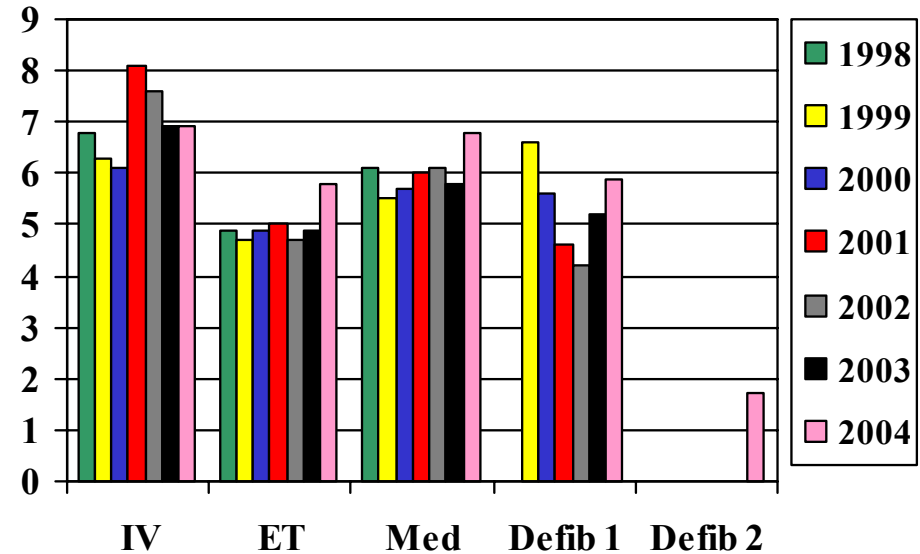
Definition: IV, ET & Meds measured in minutes from provider arrival at scene to completion of skill.

**Defib 1:* measured in minutes from time of dispatch to first countershock delivered.

***Defib 2:* measured in minutes from time at patient side to first countershock delivered.

Minutes

Fig.3.a



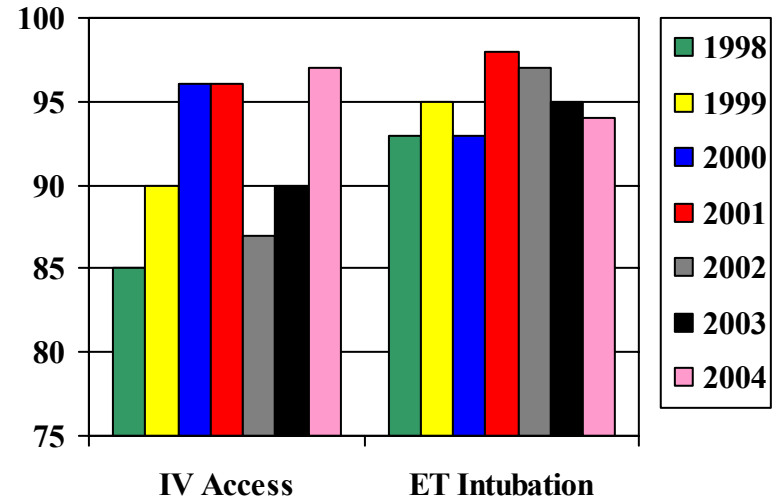
3.b: Percent of Patients Receiving Intubation/IV access

| | IV Access | ET Intubation |
|------|-----------|---------------|
| 1998 | 85% | 93% |
| 1999 | 90% | 95% |
| 2000 | 96% | 93% |
| 2001 | 96% | 98% |
| 2002 | 87% | 97% |
| 2003 | 90% | 95% |
| 2004 | 97% | 94% |

Definition: Percentage of cardiac arrest patients that received the IV or ET Intubation when indicated.

Percent

Fig.3.b



4.a: Percentage of Bystander CPR by Location of Arrest

| | Residence | Public Place | Medical Facility* | Total |
|------|-----------|--------------|-------------------|-------|
| 1998 | -- | -- | -- | 36% |
| 1999 | 30% | 77% | 97% | 46% |
| 2000 | 29% | 67% | 100% | 41% |
| 2001 | 35% | 54% | 95% | 46% |
| 2002 | 32% | 38% | 86% | 40% |
| 2003 | 26% | 33% | 88% | 37% |
| 2004 | 25% | 42% | 100% | 39% |

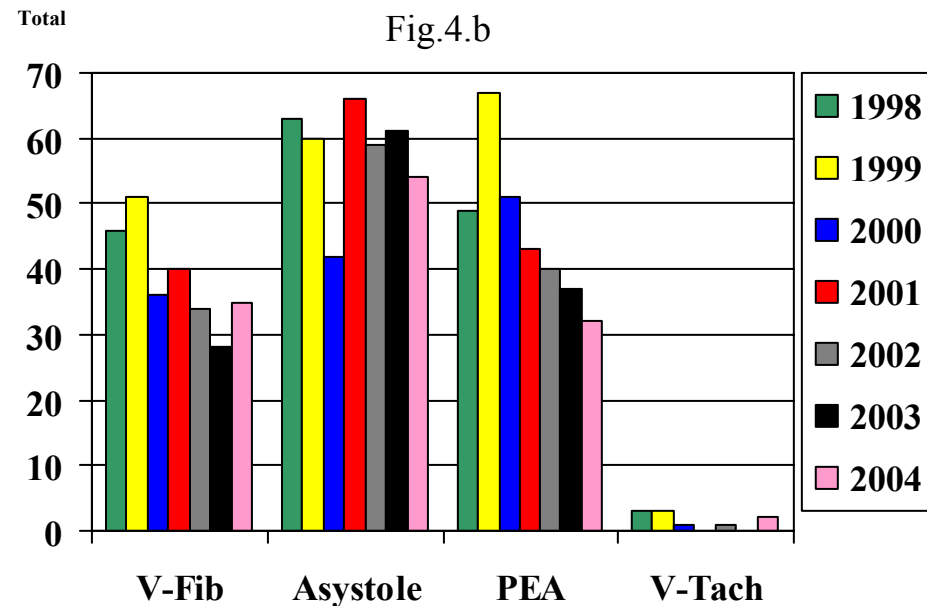
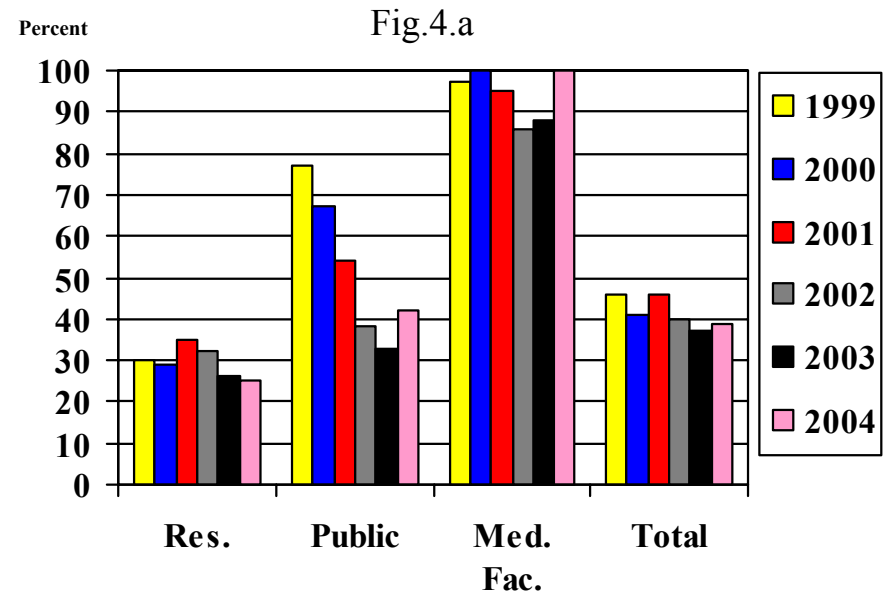
Definition: Percentage of patients receiving bystander CPR, based upon the location of arrest.

*Medical Facility includes skilled care facilities and physician offices.

4.b: Initial Cardiac Arrest ECG Rhythm

| | V-Fib | Asystole | PEA | V-Tach | Total |
|------|-------|----------|-----|--------|-------|
| 1998 | 46 | 63 | 49 | 3 | 161 |
| 1999 | 51 | 60 | 67 | 3 | 181 |
| 2000 | 36 | 42 | 51 | 1 | 130 |
| 2001 | 40 | 66 | 43 | 0 | 149 |
| 2002 | 34 | 59 | 40 | 1 | 134 |
| 2003 | 28 | 61 | 37 | 0 | 126 |
| 2004 | 35 | 54 | 32 | 2 | 123 |

Definition: Initial cardiac rhythm as described by EMS upon initial assessment of the cardiac arrest condition.



5.a: Return of Spontaneous Circulation for all Cardiac Arrests

| | In Field* | At Hospital** | Survival to Discharge*** |
|------|-----------|---------------|--------------------------|
| 1998 | 31% | 22% | 12% |
| 1999 | 27% | 24% | 9% |
| 2000 | 29% | 23% | 10% |
| 2001 | 30% | 26% | 14% |
| 2002 | 30% | 23% | 11% |
| 2003 | 25% | 21% | 6% |
| 2004 | 24% | N/R | 14% |

Definition: The percentage of patients who had a return of a pulse during the period of pre-hospital care.

**Not recorded for the year 2004

***Includes those patients that experience a loss of pulse and respirations while under the care of EMS and then are discharged alive from the hospital.

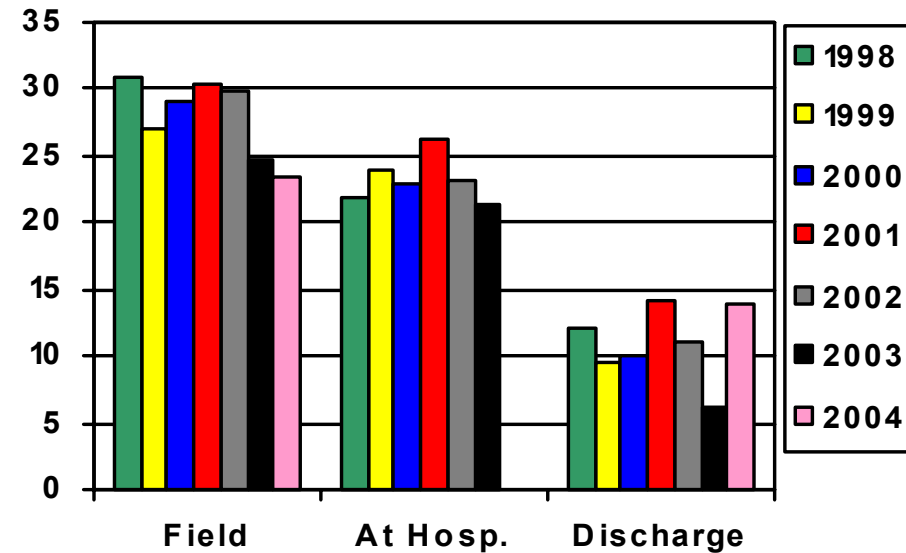
5.b: Return of Spontaneous Circulation by Initial Rhythm In the year 2003.

| | V-Fib/Tach | Asystole | PEA | Total |
|------------------|------------|----------|----------|-----------|
| # Treated | 37 | 54 | 32 | 123 |
| In Field | 11(29.7%) | 9(16.6%) | 9(28.1%) | 29(23.5%) |
| Discharged Alive | 10(27%) | 1(1%) | 6(18.7%) | 17(13.8%) |

Definition: The total number of patients with the return of a pulse, classified by presenting cardiac rhythm.

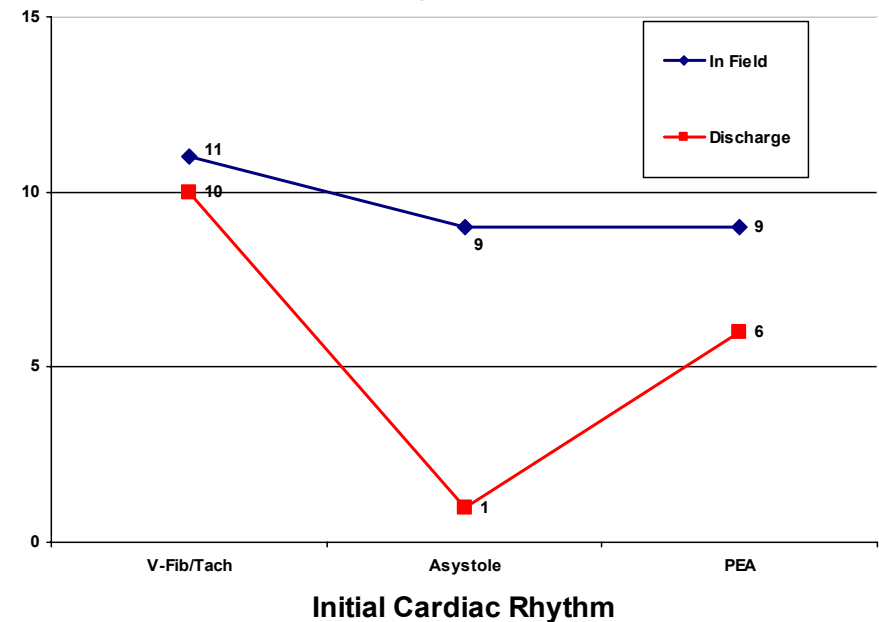
Percent

Fig.5.a

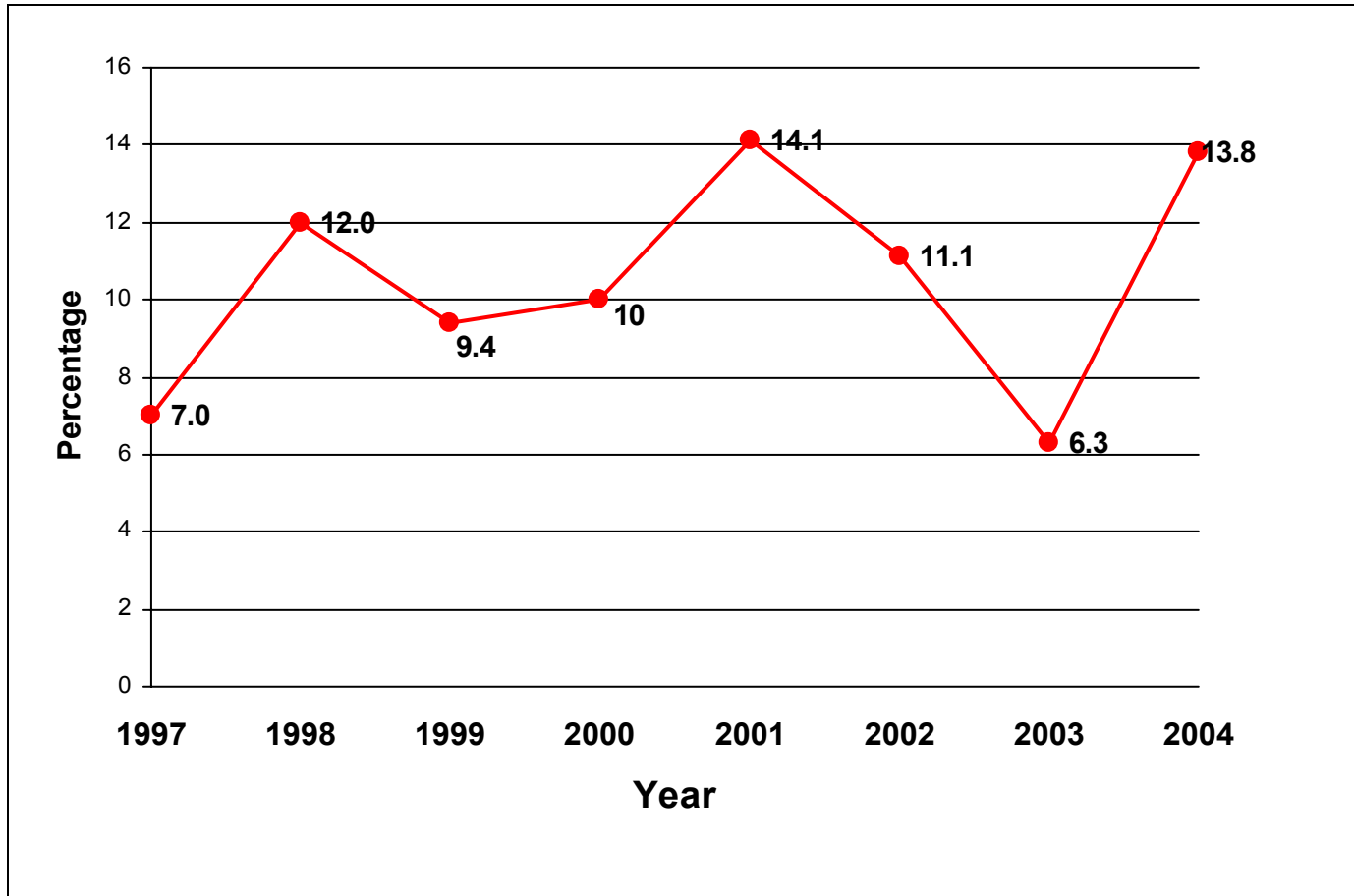


Percent

Fig.5.b



Survivors of Cardiac Arrest Discharged From The Hospital



Definition: Percentage of patients resuscitated by the EMS System and eventually were discharged from the hospital. The cardiac arrest statistics include all transported cardiac arrest patients to include calls originating in both the City of Lincoln and Lancaster County.